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Office Action impermissibly relies on Applicant's specification to suggest modifying the applied prior art.

First, Independent claim 7 recites a combination of features including forming of a sealing portion by "grinding with a tool that has a conical end with a vertex of the conical end disposed in the transition portion to provide a select finish on the sealing portion, the transition portion provides a volume receiving the vertex of the tool, the vertex being proximate to the axis of rotation." Support for these features may be found in Applicant's specification at page 9, lines 10-14, and at page 12, lines 6-13. Specifically, with reference to Applicant's Figure 2, the transition portion 614 provides a volume that receives the tip of the grinding tool forming the needle sealing portion 612, and the transition portion 614 is not contacted by the grinding tool.

The Office Action states that neither Yuji nor Claxton "disclose using a grinding tool having a conical end with a vertex of the conical end disposed in the transition portion." The Office Action purports to address the deficiencies of Yuji and Claxton by relying on Sasao, which allegedly suggests finishing the surface of a sealing portion "using a grinding tool having a conical end with a vertex" so that "the finishing accuracy can be improved." We disagree.

Sasao uses a second burnishing surface 17b of a burnishing tool 17 "to form a seat surface 10a" (Sasao page 2, lines 93-98). Sasao fails to teach or suggest a transition portion that is distinct from Sasao's seat surface 10a. In particular, Sasao fails to teach or suggest a transition portion "being interposed between the orifice portion and the sealing portion and having a third transverse cross-sectional area relative to the axis that decreases at a second rate in the downstream direction from the second area to the first transverse cross-sectional area," as recited in Applicant's claim 7. Consequently, Sasao also fails to teach or suggest a tool that has a conical end with a vertex of the conical end received in a volume defined by a transition portion, as also recited in Applicant's claim 7.

Thus, Yuji, Claxton, and Sasao, whether considered individually or together, fail to teach or suggest the combination of features recited in Applicant's independent claim 7. Accordingly, the rejections of claim 7 should be withdrawn.

Claims 2-4, 6 and 8-10 depend ultimately from independent claim 7, are therefore also allowable for at least the same reasons as claim 7, as well for reciting additional features that

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further distinguish Applicant's invention over the applied prior art.

Second, the Office Action alleges that it would have been obvious for one of ordinary skill in the art to use "a grinding tool having a conical end with a vertex, in light of the teachings of Sasao et al." Applicant disagrees. It is respectfully submitted that there is no teaching or suggestion in Sasao of a tool having a conical end with a vertex, and that the configuration of the tool alleged in the Office Action is based solely on Applicant's specification.

The Office Action acknowledges that "the tool of Sasao et al. has a truncated cone surface rather than [a] cone having a 'sharp point.'" However, the Office Action goes on to allege that "[t]he portion that may extend into the region of the transition volume does not engage with any surface of the fuel injector and therefore, serves no precise function." Again, there is no basis, other than Applicant's specification, to teach or suggest a tool including a portion that extends into, but does not engage, a transition volume.

Moreover, it is respectfully submitted that, absent Applicant's specification, there is no other rationale that teaches or suggests modifying Sasao's burnishing tool 17, which has a truncated cone surface, to have a sharp point that would be received in a transition volume. There is simply no recognition of the problems that have been identified and overcome by Applicant's invention, e.g., that the velocity of a grinding tool at the edge of a small orifice fuel injector is insufficient to provide a selected sealing surface finish. See Applicants specification at page 2, lines 1-3, and page 9, lines 10-14.

CONCLUSION

In view of the foregoing amendments and remarks, Applicant respectfully requests the reconsideration of this application and allowance of the pending claims 2-4 and 6-10. Applicant respectfully invites the Examiner to contact the undersigned at (202) 467- 7743 if there are any outstanding issues that can be resolved via a telephone conference.

Entry of this Request for Reconsideration is respectfully submitted to be proper inasmuch as no new matter has been added, no new issues have been raised, no claims have been added.

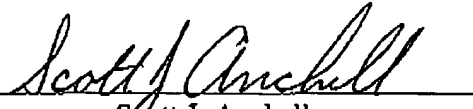
EXCEPT for issue fees payable under 37 C.F.R. §1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§1.16 and 1.17 which may be required,

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including any required extension of time fees, or credit any ov rpayment to Deposit Account No. 50-0310. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. §1.136(a)(3).

Respectfully submitted,
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Date: 19 December 2001

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